VERITAS NetBackup BusinesServer™ 3.4.1

Installation Guide

Red Hat Linux 6.2/7.0

VERITAS

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Preface

The purpose of this guide is to help NetBackup system administrators install NetBackup BusinesServer™ on the Red Hat Linux 6.2 or 7.0 platform.

This guide assumes:

◆ A basic understanding of UNIX system administration.

◆ Experience with the system on which NetBackup is to be installed.

◆ Your SCSI devices are properly attached and configured for the operating system.

Caution If a device is not properly configured for the operating system, backups made to that device may be difficult to restore or fail.

Organization

◆ Chapter 1, "Installation and Initial Configuration," contains detailed instructions on using the installation scripts.

◆ Chapter 2, "Uninstalling NetBackup Servers and Clients," explains how to uninstall the NetBackup software.

Email Notification of Product Updates

To receive NetBackup product news and updates, you can sign up for email notification as follows:

1. Go to www.veritas.com.

2. Select Support.

3. Under Technical Support Services, click on the Email Notification link.

4. Enter the information requested and select your product's name from the available product list.

Conventions

The following explains typographical and other conventions used in this guide.

Type Style

Table 1. Typographic Conventions

Typeface	Usage
Bold fixed width	Input. For example, type **cd** to change directories.
Fixed width	Paths, commands, filenames, or output. For example: The default installation directory is /opt/VRTSxx.
Italics	Book titles, new terms, or used for emphasis. For example: *Do not* ignore cautions.
Sans serif (italics)	Placeholder text or variables. For example: Replace *filename* with the name of your file.
Sans serif (no italics)	Graphical user interface (GUI) objects, such as fields, menu choices, etc.
	For example: Enter your password in the Password field.

Notes and Cautions

Note This is a Note and is used to call attention to information that makes it easier to use the product or helps you to avoid problems.

Caution	This is a Caution and is used to warn you about situations that can cause data loss.

Key Combinations

Some keyboard command sequences use two or more keys at the same time. For example, you may have to hold down the Ctrl key while you press another key. When this type of command is referenced, the keys are connected by plus signs. For example:

Press Ctrl+t

Command Usage

The following conventions are frequently used in the synopsis of command usage.

brackets [ ]

The enclosed command line component is optional.

Vertical bar or pipe (|)

Separates optional arguments from which the user can choose. For example, when a command has the following format:

command *arg1* | *arg2*

the user can use either the *arg1* or *arg2* variable.

Getting Help

For updated information about this product, including system requirements, supported platforms, supported peripherals, and a list of current patches available from Technical Support, visit our web site:

http://www.veritas.com/

VERITAS Customer Support can also be reached by email at:

support@veritas.com

Installation and Initial Configuration 1

NetBackup includes wizards that make installing and configuring the software easy.

Installing and configuring NetBackup involves the following steps as explained in this chapter:

◆ Installing NetBackup

◆ Configuring Automatic Startup and Shutdown of NetBackup

◆ Configuring Storage Devices for the Operating System

◆ Configuring NetBackup Server Software

◆ NetBackup Client Software

◆ Installing Alternative Administration Interfaces

◆ Installing NetBackup Agents and Options (Optional)

Installing NetBackup

Before running the NetBackup installation script, review "What Does the Install Script Do?" and "Before Starting the Install Script."

What Does the Install Script Do?

In addition to installing the NetBackup BusinesServer, the install script does the following:

◆ Places the name of the NetBackup BusinesServer in the `/usr/openv/netbackup/bp.conf` file on the server.

◆ Adds entries to the `/etc/services` file for NetBackup and Media Manager services (for example, robotic daemons). The `/etc/services` file contains UNIX system information. The script shows the default port numbers and asks if you want to change them.

◆ Checks to see if your server is running Network Information System (NIS). NIS is the UNIX directory service utility. If it is running, you are instructed to add entries to your NIS services map.

◆ Adds entries to the following server files to facilitate networking:

  ◆ On Red Hat Linux 6.2: `/etc/inetd.conf`

  ◆ On Red Hat Linux 7.0: `/etc/xinetd.conf`

  Entries are added for `bpcd`, `vopied`, and `bpjava-msvc`. Then, the script sends `inetd` (or `xinetd`) a `SIGNAL`, causing it to read the updated file.

◆ Adds an automatic startup script to `/etc/rc.d/rc2.d` and an automatic shutdown script to `/etc/rc.d/rc0.d`. In order for Red Hat Linux to utilize these scripts, perform the steps in "Configuring Automatic Startup and Shutdown of NetBackup" on page 5.

Before Starting the Install Script

Review this section before starting the installation.

Server Installation Requirements

◆ Make certain that you have a server of a supported hardware type running a supported version of its operating system, with adequate disk space and supported peripherals. For details on these requirements, refer to the *NetBackup Release Notes.*

◆ For reasonable performance of the NetBackup-Java interfaces, VERITAS recommends 256 MB of RAM, of which 128 MB are available to the interface program (jnbSA or jbpSA).

◆ The NetBackup CD-ROM.

◆ The root password for the server.

◆ Approximately 20 minutes to install the server software. Additional time is required to configure the product for your environment.

◆ For some peripherals and platforms, kernel reconfiguration is required. For more details, see the *Media Manager Device Configuration Guide - UNIX.*

◆ Adequate disk space to install the software (see the *NetBackup Release Notes* for binary sizes).

◆ NetBackup requires server networking on the Red Hat Linux platform.

◆ All NetBackup servers must recognize and be recognized by their client systems. In some environments, this means that each must be defined in the other's `/etc/hosts` file. Other environments may use the Network Information Service (NIS) or Domain Name Service (DNS).

◆ Identify the devices you plan to use in your NetBackup configuration. See "Robot Type Support By Platform" in the *NetBackup Release Notes* for a list of the robot types supported. The only drive types supported are DLT.

Note NetBackup BusinesServer works with a maximum of two drives and can use only one robotic device. It will not work with a robotic device that has more than two drives or more than 30 slots.

Installation Notes

◆ On the NetBackup server, the install location contains the software and the NetBackup catalog and can become quite large. The default location is `/usr/openv`.

If space is an issue, consider installing NetBackup on an alternate file system. The installation allows you to select an alternate install location, and creates the appropriate link to `/usr/openv`.

◆ Because the product uses file locking, VERITAS recommends that you not install NetBackup in an NFS mounted directory. File locking in NFS mounted file systems can be unreliable.

◆ An additional note for Red Hat Linux 7.0 users:

The Red Hat conversion script `/usr/sbin/inetdconvert` does not format the `/etc/xinetd.d` files for `bpcd`, `bpjava-msvc` and `vopied` correctly. The conversion script `inetdconvert` provided by Red Hat, adds a `server_args` line with the service name for the NetBackup services `bpcd`, `bpjava-msvc` and `vopied`.

To correct this, edit the files `bpcd`, `bpjava-msvc` and `vopied` in `/etc/xinetd.d` and take out the service name as an argument.

For example, the file for `bpjava-msvc` contains the following line:

```
server_args           = bpjava-msvc -transient
```

Instead, it should be:

```
server_args           = -transient
```

The `server_args` line in the files `bpcd` and `vopied` can be removed since no arguments are passed to these services.

▼ **To install NetBackup software**

1. When installing a NetBackup BusinesServer, you must enter a NetBackup base product license key. You will also enter license keys for any additional NetBackup software product options or agents used on the server or its clients.

Check your order to make sure that you have license keys for all the NetBackup servers, clients, options, and agents that you requested.

For more information on administering NetBackup licenses, see *NetBackup BusinesServer System Administrator's Guide - UNIX.*

2. Log in as the root user on the server.

3. Insert the CD-ROM in the drive.

4. Change your working directory to the CD-ROM directory:

```
cd cd_rom_directory
```

Where *cd_rom_directory* is the path to the directory where you can access the CD-ROM. On some platforms, it may be necessary to mount the directory.

5. Execute the install script:

```
./install
```

When the menu appears, choose option 1 (NetBackup). This installs both Media Manager and NetBackup software on the server.

6. Follow the prompts in the installation scripts.

Note – The installation script offers you the option to load onto the server the client software for each of the UNIX client types supported by NetBackup. Later, you can "push" this client software from the server to your UNIX clients (refer to "UNIX" under "Remote Client Installations" on page 13).

Load onto the server the software for all the UNIX client types you intend to back up. Otherwise, you will not be able to add these client types to the NetBackup class configuration.

– When installing the NetBackup BusinesServer software, the correct NetBackup client software is automatically installed on the server as well. Do not install additional client software on the server.

Configuring Automatic Startup and Shutdown of NetBackup

You may want to create or modify system startup scripts to start the Media Manager and NetBackup daemons when the system boots and to terminate the daemons at system shutdown. Always start the Media Manager daemons before the NetBackup daemons.

In your initialization scripts for media servers, start and stop only ltid. Do not start and stop bprd from media-server initialization scripts.

NetBackup startup and shutdown scripts are stored in the following directory:

```
/usr/openv/netbackup/bin/goodies
```

▼ **To configure automatic startup and shutdown**

1. Search for file `/etc/rc.d/rc0.d/K77netbackup` and remove it:

```
cd /etc/rc.d/rc0.d
rm -i ./K77netbackup
```

Type **Y** when the system asks you to confirm your choice.

2. Search for file `/etc/rc.d/rc2.d/S77netbackup` and remove it:

```
cd /etc/rc.d/rc2.d
rm -i ./S77netbackup
```

Type **Y** when the system asks you to confirm your choice.

3. Establish the following script as `/etc/rc.d/init.d/netbackup`:

```
#!/bin/sh
#
# Startup/Shutdown script for VERITAS NetBackup software
#
# chkconfig: 345 77 77
# description: VERITAS NetBackup software.

# See how we were called.
case "$1" in
   start)
       echo "Starting VERITAS NetBackup: "
       /usr/openv/netbackup/bin/goodies/S77netbackup
       echo
       touch /var/lock/subsys/netbackup
       ;;
   stop)
       echo "Shutting down VERITAS NetBackup: "
       /usr/openv/netbackup/bin/goodies/K77netbackup
       echo
       rm -f /var/lock/subsys/netbackup
       ;;
   *)
       echo "Usage: $0 {start|stop}"
       exit 1
esac

exit 0
```

4. Execute the following command:

```
/sbin/chkconfig --add netbackup
```

5. Execute the following command to verify that your new service is configured in:

```
/sbin/chkconfig --list netbackup
```

Configuring Storage Devices for the Operating System

Reliable use of NetBackup depends on the configuration of your storage devices. To ensure reliable backups and restores, you must configure devices for your operating system according to the instructions provided by the device and operating system vendors. This should be completed *before* you configure NetBackup itself.

Note To connect a device to the operating system (OS), you should read the chapter appropriate for your OS in the *NetBackup Media Manager Device Configuration Guide*. The Device Configuration Guide is available on your NetBackup CD-ROM in Acrobat format.

Caution An improperly configured device may lead to backup and/or restore failures.

▼ **To prepare a newly connected storage device**

1. Consult your storage device's operating manual or front panel to learn how to set the SCSI ID (target), and then set it to an available SCSI ID.

2. Physically attach your device to a compatible host bus adapter where that SCSI ID is available. "Compatible" means that both the device and host bus adapter are of the same type (such as single-ended, high voltage differential, low voltage differential, or fibre channel).

Configuring NetBackup Server Software

Once the server software and storage devices have been installed, use the Getting Started wizard to configure NetBackup.

The Getting Started wizard leads you through the steps necessary to set up your system by initiating a series of other wizards. You can configure your server at another time by starting the wizard through NetBackup Assistant from the Administration Interface. (See "To start the NetBackup Administration Interface" on page 9.)

▼ **To configure NetBackup server software**

1. Configure volumes.

2. Configure the catalog backup.

3. Create a backup policy.

For more information on the wizards, see the *NetBackup BusinesServer Getting Started Guide - UNIX*.

For more information on configuring NetBackup without the wizards, refer to the Administrator's Guide for BusinesServer or Media Manager.

Using the Getting Started Wizard

The Getting Started wizard helps you to configure NetBackup. The wizard also runs a test backup to verify that your configuration is complete and correct.

To use the Getting Started wizard, you must start the Administration Interface.

Note For NetBackup to function reliably, your storage devices must be correctly installed and configured (see "Configuring Storage Devices for the Operating System" on page 7).

▼ **To start the NetBackup Administration Interface**

1. Log on to the NetBackup server as root.

   If you need to run the user interface on a computer other than the NetBackup server, log on to that computer as root for a UNIX computer, or as the Windows administrator for a Windows computer.

2. Start the NetBackup administration by executing:

       /usr/openv/netbackup/bin/jnbSA &
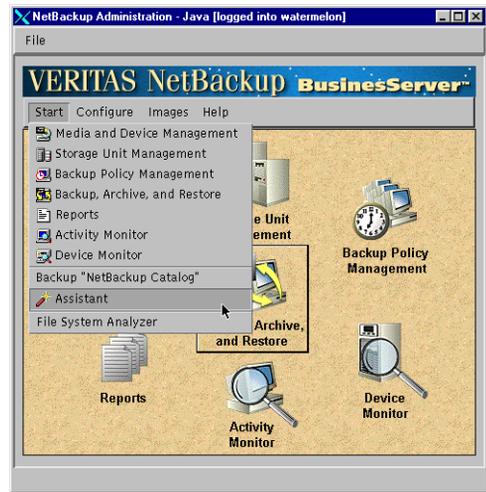
   The Login dialog box appears.

   For additional usage information, enter **jnbSA -h**

3. Enter the password for root.

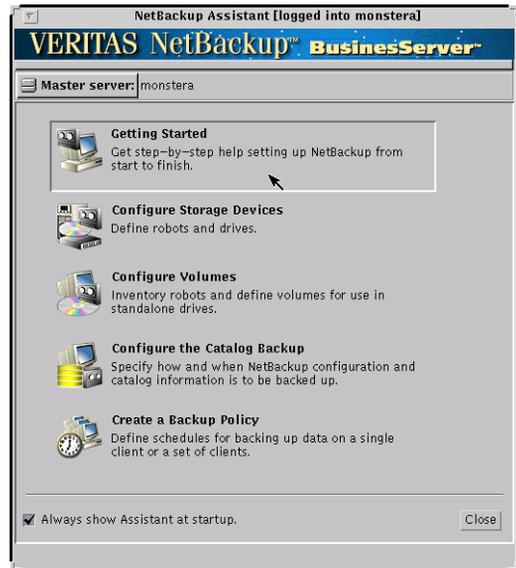4. Click Login. The Login dialog closes.

▼ **To access the NetBackup Assistant**

1. To access the NetBackup Assistant, select Assistant from the Start menu in the NetBackup Administration Interface:

2. Click on the Getting Started button in the NetBackup Assistant:

NetBackup Client Software

By definition, your NetBackup server is also a NetBackup client. When you installed the NetBackup server software, both the NetBackup *server* and NetBackup *client* software were installed on the server.

Note Your server does not count against the BusinesServer limit of four remote clients (eight with the Client Expansion pack).

Client Installation Requirements

To install NetBackup client software on a PC workstation, you must have one of the following configurations.

Microsoft Windows NT/2000 Clients

◆ Microsoft Windows NT version 4.0 or later, including Windows 2000.

◆ NT 4.0 users should also have NT service pack 4.

◆ An Intel Pentium or DEC Alpha processor.

◆ Any TCP/IP transport that is Windows Socket compliant. (Use the TCP/IP transport that comes with Windows NT/2000 Server.)

◆ A network board supported by your TCP/IP transport.

Microsoft Windows 9x Clients

◆ Microsoft Windows Me.

◆ Microsoft Windows 95 or Microsoft Windows 98.

◆ An Intel Pentium processor.

◆ Any TCP/IP transport that is Windows Sockets Compliant. (Use of the TCP/IP transport that comes with the operating system is recommended.)

◆ A network board supported by your TCP/IP transport.

◆ Windows 95 users must have the Windows Socket 2 Update for Windows 95. This download can be found at:

```
www.microsoft.com/windows95/downloads/contents
```

Remote Installations

To perform remote installations, there are several additional requirements:

◆ The source PC must have Windows NT/2000 installed.

◆ The destination PC must have Windows NT/2000 installed.

◆ The person performing the remote installation must have administrator privileges on all client PCs.

Windows 95/98/2000/NT 4.0

Note Open Transaction Manager (OTM) is a separately-priced option. If the client's server is a NetBackup BusinesServer, you must have license keys for this feature registered on the server to enable this feature.

Execute `PC_Clnt\Win32\X86\Setup.exe` from the CD-ROM.

NetWare Target and NonTarget

Installing OTM for NetWare

Note Open Transaction Manager (OTM) is a separately-priced option. If the client's server is a NetBackup BusinesServer, you must have license keys for this feature registered on the server to enable this feature.

NetWare 3.x and 4.x:

1. Copy the following file from the `PC_Clnt\NetWare\NLM\OTM\3X4X` directory on the NetBackup CD-ROM, to the server's DOS partition:

   `Otmdsk.dsk`

2. Modify `STARTUP.NCF` on the server's DOS partition so that `Otmdsk.dsk` is loaded before any other `.dsk` drivers.

3. Reboot the NetWare file server.

NetWare 3.x, 4.x and 5x:

Copy the following files from the `PC_Clnt\NetWare\NLM\OTM\COMMON` directory on the CD-ROM, to the NetWare file server:

```
Otmcdm.cdm
Otmlapi.nlm
Otmload.nlm
Pmthread.nlm
```

Installing NetBackup

Note `tsands.nlm` must be installed in order to back up and restore NetWare Directory Services (NDS) files.

Any version-dependent NLMs must be also installed. These NLMs are in the form `tsaxxx.nlm` and are supplied by Novell based on the NetWare Server release level. For example, the appropriate NLM for a Netware 5.0 server is `tsa500.nlm`.

1. Copy the following files from the `PC_Clnt\NetWare\NLM` directory on the CD-ROM, to the `SYS:system` directory on your file server:

```
bp.nlm
bpsrv.nlm
bpsms.hlp
bpcd.nlm
```

2. Create the following directories on the `SYS:` volume:

- ◆ For NetWare Target

```
Openv\netback\logs
Openv\netback\logs\altpath
Openv\netback\logs\bpback
Openv\netback\logs\bprest
Openv\netback\logs\bpcd  (optional)
Openv\netback\tgts
```

- ◆ For NetWare NonTarget

```
Openv\netback\logs
Openv\netback\logs\altpath
Openv\netback\logs\bpsrv  (optional)
Openv\netback\logs\bpcd  (optional)
```

3. For NonTarget clients, execute `PC_Clnt\NetWare\Win32\Setup.exe` file from the NetBackup CD-ROM.

4. Modify the host's file to contain the NetBackup server and its IP address.

Macintosh

> **Note** You can install Macintosh clients from the NetBackup 3.4 CD-ROM.

For Mac OS 7, 8 and 9 installation instructions, refer to the *NetBackup Installation Guide - PC Clients.* For Mac OS X Server instructions, refer to "UNIX" on page 11.

OS/2 Warp

> **Note** You can install OS/2 Warp clients from the NetBackup 3.4 CD-ROM.

1. Copy `PC_Clnt\OS2\nbuos2.exe` to a temporary directory on the OS/2 Warp computer.

2. Execute `nbuos2.exe` from the temporary directory to extract the installation files.

3. Execute `install.exe` from the temporary directory to install NetBackup for OS/2.

UNIX

To use a UNIX client, the software for that type of UNIX computer must first be loaded onto your UNIX server. If you did not choose to do this during the installation of your UNIX server, do so now by following the instructions provided in "Adding a UNIX Client Type After Initial Server Installation" on page 20.

UNIX clients can be installed using one of two methods: locally at the client computer, or remotely, from your UNIX NetBackup server.

Locally

You must install the client software locally if remote installation is not possible. Remote installation is not possible if your NetBackup server is an NT/2000 computer or if there is a firewall that prevents remote installation.

Remotely

You can "push" the client software from your UNIX NetBackup server to your UNIX client computers.

> **Note** – If you are running NetBackup on a Windows NT/2000 computer, or if there is a firewall that prevents remote installation, UNIX clients *must* be installed locally.
>
> – You must install client software locally to install NetBackup Java on HP, Solaris, and Linux NetBackup clients. NetBackup Java is only installed and distributed to the above mentioned NetBackup Java-capable UNIX clients from the same NetBackup server platforms.

To initiate a backup or a restore from the UNIX client computer, the following graphical interfaces are available on the UNIX client:

◆ On Solaris, HP, and Linux clients only: the NetBackup Java interface (jbpSA).

◆ On all UNIX clients except Mac OS X Server: the xbp interface. For instructions on the use of xbp, see the *NetBackup BusinesServer User's Guide - UNIX.*

> **Note** Mac OS X Server is available through the bp interface or from a Solaris, HP/UX NetBackup, or Linux client console via jbpSA.

▼ **To install client software locally**

1. Insert the NetBackup CD-ROM into the drive on the client computer.

HP systems only: Because the NetBackup CD-ROM is Rockridge formatted, it must be mounted by entering the following commands:

```
nohup pfs_mountd &
nohup pfsd &
pfs_mount -o xlat=unix /dev/dsk/device-ID /cdrom
```

Where *device_ID* is the ID of your CD-ROM drive.

2. Change your working directory to the CD-ROM directory:

```
cd cd_rom_directory
```

Where *cd_rom_directory* is the path to the directory where you can access the CD-ROM. On some platforms, it may be necessary to mount the directory.

3. Start the install program.

```
./install
```

4. Choose option 2, NetBackup Client Software.

> **Note** The choices provided for OS level represent the OS Level on which the binaries were compiled. Often the binaries will function perfectly on newer versions of the operating system. For example, Solaris 2.6 binaries are also used on Solaris 7 and Solaris 8 levels of the operating system. Therefore, if you wish to install on a Solaris 8 system, choose the Solaris 2.6 binaries.

5. Follow the prompts to complete the installation.

6. On HP systems only—to unmount the CD-ROM:

   ◆ Execute the `pfs_umount` command

   ◆ Use the `kill` command to kill the following processes:

   ```
   pfs_mountd
   pfsd
   pfs_mountd.rpc
   pfsd.rpc
   ```

Remote Client Installations

The following sections describe how to "push" the client software from your UNIX NetBackup BusinesServer to your UNIX NetBackup clients. You can push the client software to:

◆ a trusting client, or

◆ a secure client.

Installing NetBackup on Trusting UNIX Clients

A *trusting* UNIX client is one that has an entry for the server in its `/.rhosts` file. The `/.rhosts` entries enable software installation, but are not necessary for correct operation of NetBackup software.

> **Note** Add the trusting clients to a backup policy (class), if this has not already been done. (See "Configuring Backup Policies (Classes)" in the *NetBackup BusinesServer Getting Started Guide*.)

▼ **To install NetBackup on a trusting UNIX client**

1. Start the NetBackup Administration interface. (See "Start the NetBackup Administration Interface" on page 7.)

    In the Login dialog box, type the name of the NetBackup server that has the class configuration with the clients.

    You can install the client software only from the NetBackup server that you specify in the Login dialog box when starting the interface. The clients must be defined in a class on this NetBackup server.

2. In the NetBackup Administration window, click the Backup Policy Management icon.

3. Select the master server in the left pane.
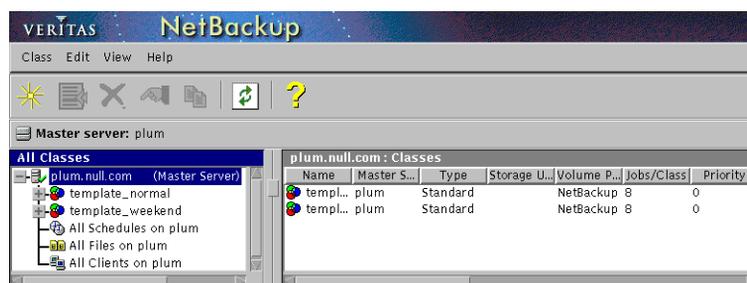
4. Choose Install UNIX Client Software on the Edit menu.

    The Install UNIX Client Software dialog box appears.

5. In the Don't install on these clients box, select the clients you want to install and click the right arrows.

    The clients are moved to the Install these clients box.

6. Click the Install Client
Software button to start the
installation.

Client software installation
can take a minute or more
per client. NetBackup
writes messages in the
Progress box as the
installation proceeds. If the
installation fails on a client,
NetBackup notifies you but
keeps the client in the class.
You cannot stop the
installation once it has
started.

During installation,
NetBackup does the
following:

◆ Copies the client software from the `/usr/openv/netbackup/client` directory
on the server to the `/usr/openv` directory on the client.

◆ Adds the required entries to the client's `/etc/services` and `inetd.conf` files.

The only way to install client software to a different location on the client is to create
the directory where you want the software to reside and then create `/usr/openv/` as
a link to that directory prior to installing software.

7. When the install is complete, click Close.
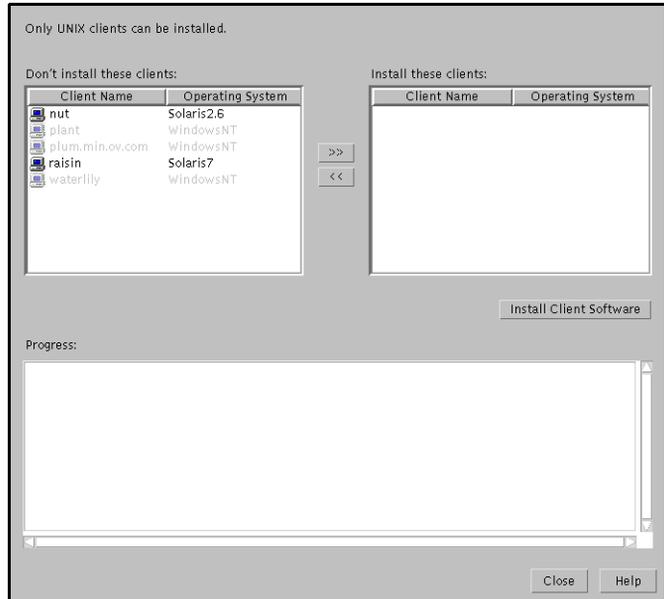
Installing NetBackup Software on Secure UNIX Clients

As defined here, a *secure* UNIX client is one that does not have an entry for the NetBackup server in its `/.rhosts` file.

> **Note** Add the secure clients to a backup policy (class), if this has not already been done. (See "Configuring Backup Policies (Classes)" in the *NetBackup BusinesServer Getting Started Guide*.)

▼ **To install NetBackup on a secure UNIX client**

1. Move software from the server to temporary space in the `/tmp` directory on the client by executing the `install_client_files` script from the NetBackup server. To execute this script, you must have a login ID and password that you can use to access the clients through ftp.

To move software to only one client at a time, execute:

```
/usr/openv/netbackup/bin/install_client_files ftp client user
```

To move software to all clients at once, execute:

```
/usr/openv/netbackup/bin/install_client_files ftp ALL user
```

Where the options are defined as follows:

◆ *client* is the hostname of the client.

◆ *user* is the login id required by ftp on the client.

◆ `ALL` specifies that you want to install all clients which are configured in any backup policy (class) on the server.

The `install_client_files` script prompts you for a password for each client if you do not have a `.netrc` file set up.

2. After the `install_client_files` script is done, the root user on each of the clients must execute the `client_config` script to complete the installation:

```
sh /tmp/bp/bin/client_config
```

The `client_config` script installs the binaries and updates the `/etc/services` and `inetd.conf` files on the client.

Adding a UNIX Client Type After Initial Server Installation

If you add a new UNIX client type to your backup environment, or forgot to select a UNIX client platform during your NetBackup installation, you must first load the NetBackup client software onto the NetBackup server as described below.

▼ **To add a UNIX client type after initial server installation**

1. Insert the NetBackup CD-ROM into the drive on the server.

2. Change your working directory to the CD-ROM directory:

   ```
   cd cd_rom_directory
   ```

   Where *cd_rom_directory* is the path to the directory where you can access the CD-ROM. On some platforms, it may be necessary to mount the directory.

3. Use the install program to load the client software onto the NetBackup server.

   ```
   ./install
   ```

4. Choose option 2, NetBackup Client Software.

5. Follow the prompts, selecting the additional client platforms you want.

6. You must now install the NetBackup client software on these additional client computers, as described earlier in this chapter.

Installing Alternative Administration Interfaces

You can install a NetBackup user interface on a different computer. (This will be necessary if your server computer has no graphics display capabilities.)

System	Install this user interface
UNIX	UNIX NetBackup client. Then set up your window manager.
Windows NT/2000	Administration Client or the Java Display Console
Windows 98 or Windows 95	Java Display Console

NetBackup Administration Client

You can skip this section if you do not want to remotely administer a NetBackup server from a Windows NT/2000 NetBackup client.

The NetBackup Administration Client for Windows NT/2000 is a version of NetBackup for Windows NT/2000 that can be used to remotely administer one or more UNIX or Windows NT/2000 NetBackup servers. It provides all of the standard NetBackup Server for Windows NT/2000 interfaces and can be used to create backup policies (classes), manage volumes, view status, monitor tape drives, etc., on a remote NetBackup server. It cannot be used as a NetBackup master or media server itself—only for the remote administration of other 3.4.1 NetBackup UNIX or NT servers.

Although the Administration Client cannot be used as a master or media server, in order for it to remotely administer a NetBackup server, it must be added to the server list on that server in the same way that other NetBackup servers are added to the server list to give them access to that server.

The NetBackup manuals and on-line help do not, in most cases, specifically refer to the NetBackup Administration Client since, for all practical purposes, using the NetBackup Server for Windows NT interfaces on the Administration Client is identical to using them locally on the server that is being administered. Of course, the master server or device host shown in the interface will be the server name that is being administered instead of the local server name.

▼ **To add the Administration Client host to the server list of the remote BusinesServer**

1. Go to the remote NetBackup BusinesServer.
   In the `/usr/openv/netbackup/bp.conf` file, at the end of the SERVER = lines, add the following line:

   ```
   SERVER = name-of-Administration-Client-machine
   ```

2. Go to the computer on which you want to install the Administration Client and insert the CD-ROM that contains the NetBackup server software.

   ◆ On Windows NT 4.0/2000 systems with AutoPlay enabled for CD-ROM drives, the NetBackup install program starts automatically.

   ◆ On Windows NT 4.0/2000 systems that have AutoPlay disabled, run the `AutoRunI.exe` program in the `AutoRun` directory on the CD-ROM.

3. On the NetBackup - Install screen, click the Install option beneath NetBackup Server.

4. Enter the NetBackup base product license key. For more information on administering NetBackup licenses see the *NetBackup BusinesServer System Administrator's Guide - UNIX.*

5. Click Administration Client.

6. Follow the prompts to complete the installation.

Note On the NetBackup System Names screen, the name of the Administration Client should be in the first entry field. You must enter the name of the remote NetBackup BusinesServer computer in the Master Server field.

When the software is installed, a set of NetBackup documents are also installed in the following directory:

   install_path\Help

By default, *install_path* is `C:\Program Files\VERITAS`.

By default, the Administration Client interface will automatically begin as soon as you click Finish in the installation program. (If you did not choose that default, go to the Windows Start menu on the Administration Client computer and select Programs, VERITAS NetBackup, NetBackup Administration.)

NetBackup-Java Display Console for Windows

Note	You can install the NetBackup-Java Display Console from the NetBackup 3.4 CD-ROM.

The NetBackup-Java Display Console allows you to run the NetBackup Java (UNIX) interfaces on a Windows NT, 2000, 98, or 95 system to remotely administer your UNIX NetBackup BusinesServer.

You can skip this section if you do not want to remotely administer your UNIX NetBackup servers using the Java interface on Windows NT, 2000, 98, or 95.

Requirements

For the computer on which you want to run the NetBackup-Java Display Console, VERITAS recommends 256 MB of physical memory.

▼ **To install the NetBackup-Java display console**

1. On the system where you are performing the install, insert the CD-ROM that contains the NetBackup server software.

    On Windows NT 4.0/2000 systems with AutoPlay enabled for CD-ROM drives, the NetBackup install program starts automatically.

2. On the NetBackup Install screen, click on the Install option beneath NetBackup - Java Display Console for MS. A welcome dialog box appears.

3. Click Next and follow the prompts to complete the installation.

4. When the software is installed, see the following document for information on using the display console (this document is installed with the software):

    install_path\Java\Readme.txt

    Where, by default, *install_path* is C:\Program Files\VERITAS.

Installing NetBackup Agents and Options

After your initial installation is complete, you can install any other NetBackup agents and options (such as NetBackup for Oracle) by following the instructions in the NetBackup guide that comes with that product.

Uninstalling NetBackup Servers and Clients   **2**

This chapter gives instructions for uninstalling NetBackup BusinesServer software.

Uninstalling NetBackup BusinesServer

▼ **To uninstall NetBackup on a Linux server**

1. Log in as the root user on the server.

2. Perform a catalog backup.

3. Stop the NetBackup/Media Manager daemons:

```
/usr/openv/netbackup/bin/goodies/bp.kill_all
```

4. Remove the `/usr/openv` directory:

◆ If `/usr/openv` is a physical directory, execute:

```
rm -rf /usr/openv
```

◆ If `/usr/openv` is a link, execute:

```
cd /usr/openv
rm -rf *
cd /
rm -f /usr/openv
```

Caution The `rm -f /usr/openv` command will also uninstall any NetBackup Add-on products installed on this machine.

5. If you modified the startup and shutdown scripts as described in "Configuring Automatic Startup and Shutdown of NetBackup" on page 5, execute:

```
/sbin/chkconfig --del netbackup
```

If you did not modify the startup and shutdown scripts, remove the following files:

```
/etc/rc.d/rc0.d/K77netbackup
/etc/rc.d/rc2.d/S77netbackup
```

6. Replace the /etc/services file with /etc/services.NBU_*mmddyy.hh:mm:ss*, where *mmddyy.hh:mm:ss* is the date and time of the original installation.

7. Restore the original inetd configuration.

  ◆ For Red Hat Linux 6.2:

  a. Replace the /etc/inetd.conf file with /etc/inetd.conf.NBU_*mmddyy.hh:mm:ss*, where *mmddyy.hh:mm:ss* is the date and time of the original install.

  b. Execute the following command to identify the process ID of inetd:

```
ps -ef | grep inetd
```

  c. Execute the following command to cause inetd to read its configuration file again:

```
kill -1 Process ID
```

  ◆ For Red Hat Linux 7.0:

  a. Remove the NetBackup related files under /etc/xinetd.d. These files are:

```
/etc/xinetd.d/bpcd
/etc/xinetd.d/bpjava-msvc
/etc/xinetd.d/vopied
```

  b. Execute the following command to identify the process ID of xinetd:

```
ps -ef | grep xinetd
```

  c. Execute the following command to cause xinetd to read its configuration file again:

```
kill -10 Process ID
```

8. Execute the following command to remove the NetBackup-Java application state data for the root account:

```
/bin/rm -rf /.nbjava
```

9. Inform NetBackup-Java users that they can remove their $HOME/.nbjava directory.

The $HOME/.nbjava directory contains application state information (for example, table column order and size) that is saved when the user exits NetBackup-Java applications.

Uninstalling NetBackup Clients

For instructions on uninstalling NetBackup client software for the following platforms, refer to the *NetBackup Installation Guide - PC Clients*.

- ◆ Windows 95/98, NT/2000
- ◆ Macintosh
- ◆ Novell NetWare
- ◆ OS/2

▼ **To uninstall UNIX NetBackup client software**

1. Log in as the root user on your client.

2. Remove the /usr/openv directory.

   If /usr/openv is a physical directory, execute:

   ```
   rm -rf /usr/openv
   ```

   If /usr/openv is a link, execute:

   ```
   cd /usr/openv
   rm -rf *
   cd /
   rm -f /usr/openv
   ```

3. Remove NetBackup entries in the /etc/services file, as follows:

   - ◆ Edit the client's /etc/services file.
   - ◆ Locate the lines marked by the following and remove them:

     ```
     # NetBackup services#
     .....
     # End NetBackup services #
     ```

```
# Media Manager services #
....
# End Media Manager services #
```

4. Restore the original inetd configuration.

    a. Restore inetd data:

    Edit /etc/inetd.conf and delete the lines for bpcd, vopied, and
    bpjava-msvc.

    ◆   For NCR, this file is called inetd.local.

    ◆   For Red Hat Linux 7.0 (running xinetd), remove these files instead:

    ```
    /etc/xinetd.d/bpcd
    /etc/xinetd.d/bpjava-msvc
    /etc/xinetd.d/vopied
    ```

    b. Find out the inetd process ID:

    ◆   For most UNIX clients:

    ```
    ps -ea | grep inetd
    ```

    ◆   For Red Hat Linux 6.2:

    ```
    ps -ef | grep inetd
    ```

    ◆   For Red Hat Linux 7.0:

    ```
    ps -ef | grep xinetd
    ```

    ◆   For Mac OS X Server, Free BSD, and Auspex:

    ```
    ps -ax | grep inetd
    ```

        c. Send the appropriate signal to the `inetd` daemon:

            ◆   For clients running `inetd`:

```
kill -1 Process ID
```

            ◆   For clients running `xinetd`:

```
kill -10 Process ID
```

5. For Solaris, HP, and Linux NetBackup clients running NetBackup-Java graphical interfaces, remove the NetBackup-Java state data by executing the following:

```
/bin/rm -rf /.nbjava
```

6. Inform users of this machine that they can remove their `$HOME/.nbjava` directory.

The `$HOME/.nbjava` directory contains application state information (for example, table column order and size) that is saved when the user exits NetBackup-Java applications.

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